

REMARKS

This responds to the Office Action dated April 5, 2005.

Claim 52 is amended, claims 49-51 are canceled; as a result, claims 1-12, 36-46, and 52-55 are now pending in this application.

Information Disclosure Statement

Applicant filed a Supplemental Information Disclosure Statement (“SIDS”) on August 31, 2004. The examiner partially initialed the Form 1449 that accompanied this SIDS. Specifically, on the page 3 of the 1449 Form, JP-52-004051 and JP-59-083772, were not indicated as considered by the examiner. Applicant encloses herewith a copy of the initialed Form 1449 for the examiner’s reference. Applicant requests that the examiner consider the second entry and return a completely initialed copy of the Form 1449 with the next USPTO communication.

§103 Rejection of the Claims

Claims 1-7, 9-12 and 39-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rorvick et al. (U.S. Patent No. 6,009,348) in view of Funari (U.S. Patent No. 4,171,477).

Claims 1-7

Applicant traverses the obviousness rejection of claims 1-7 since the Office Action has not provided sufficient motivation to modify or combine the cited references as required to support a 35 U.S.C. § 103(a) rejection.

Claim 1 recites: A method of joining a connection member to a foil, the method comprising: positioning the connection member and the foil against each other; and forcing the connection member and the foil together between a hardened surface and a staking pin which has a tip of less than or equal to approximately 0.030" (0.762 mm) in diameter.

The Office Action admits that Rorvick does not disclose a staking pin having a tip of less than or equal to approximately 0.030" (0.762 mm) in diameter. The Office Action then asserts that Funari discloses this subject matter. Applicant traverses. Funari discusses an electrical

welder for bonding a wire to a substrate. (Abstract, Funari). Funari does not discuss joining using staking pins. Accordingly, regardless of the size of the Funari electrical welding tips, Funari does not discuss anything to do with tips of a staking pin.

On page 6 of the Office Action the Examiner asserts that “[i]n Funari the pin is for welding, in a broad interpretation, the welding pin functions like a staking pin due to the force applied on the pin to press the components to be joined.” Applicant traverses. The welding tips of Funari do not function as staking pins. Staking pins force materials together to join the material, as recited in the claim. In Funari, the electrical welding tips are “moved down into contact with the wire” before the circuit is discharged to bond the wire to the substrate. (Col. 7, line 27). This mere contact is not joining materials by using a staking pin, as recited in the claim.

Moreover, the Office Action states that a “person of ordinary skill is motivated to modify Rorvick with Funari to obtain weld of desired size.” This assertion is not disclosed in either reference. As noted, the Funari reference discloses nothing about staking pin welds. There is no motivation or suggestion in the art or in either reference to justify modifying Rorvick in view of Funari. They are joining material by two completely different techniques. Rorvick discusses staking and Funari discusses electrical welding. The size of Funari's electrical welding tips has no relevance on the size of Rorvick's staking pins.

Moreover, a factor cutting against a finding of motivation to modify the prior art is when the prior art teaches away from the claimed combination. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path the applicant took. *In re Gurley*, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994); *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 484 (1966); *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969); *In re Caldwell*, 319 F.2d 254, 256, 138 USPQ 243, 245 (C.C.P.A. 1963).

In this case, Rorvick et al. relates a welding technique to minimize the “overall thickness of anode sub-assembly 170 in the regions of welds 205 and 210.” (Col. 25, lines 38-39). Rorvick et al. state that in a preferred embodiment, the cold weld pins “have a diameter of about 0.060 inches.” (Col. 25, line 25). Rorvick et al. then state that “no or an inappreciable net increase in anode sub-assembly 170 thickness results when cold weld geometries and formation processes

are appropriately optimized.” (Col 25, lines 52-54). Applicant believes this teaches away from modifying the geometry of the 0.060" weld pins of Rorvick et al. Applicant notes that if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP § 2143.01. Accordingly, one skilled in the art would not be motivated to make the asserted modification.

Claims 2-7 include each limitation of their parent claim and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

Claims 9-12

Applicant traverses the obviousness rejection since, even if combined, the combination does not include each limitation recited in the claim. For instance, Applicant cannot find in either reference: placing the connection member against a hardened surface, placing the foil between the connection member and a staking tool, and forcing the foil into the connection member with the staking tool, as recited in claim 9. In contrast, Rorvick discusses sandwiching a tab 195d between an anode layer 185a and an anode layer 185b. (Col. 26, lines 10-16, Fig. 6C). The tab 195d is not placed against a hardened surface, it is between the two anode layers.

The Office Action on page 7 asserts that “In Rorvick, the layers are welded on the base layer of the apparatus ... which is inherently hardened.” However, even if that is so, Rorvick at most shows placing a foil against the surface, Rorvick does not show placing the connection member against a hardened surface, as recited in claim 9.

Claim 10-12 include each limitation of their parent claim and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

Claims 39-46

Applicant traverses the obviousness rejection of claims 39-46 since the Office Action has not provided sufficient motivation to modify or combine the cited references as required to support a 35 U.S.C. § 103(a) rejection.

Claim 39 recites: A method of joining two or more foils, the method comprising: positioning the two or more foils in a stack; and forcing the two or more foils together between a

hardened surface and a staking pin which has a tip of less than approximately 0.060" (1.524 mm) in diameter.

As noted above, Funari discusses an electrical welder for bonding a wire to a substrate. Funari does not discuss joining using a staking pin. Accordingly, regardless of the size of the Funari electrical welding tips, Funari does not discuss anything to do with tips of a staking pin.

On page 6 of the Office Action the Examiner asserts that “[i]n Funari the pin is for welding, in a broad interpretation, the welding pin functions like a staking pin due to the force applied on the pin to press the components to be joined.” Applicant traverses. As discussed above, the welding tips of Funari do not function as staking pins. Staking pins force material together to join the materials. In Funari, the electrical welding tips are “moved down into contact with the wire” before the circuit is discharged to bond the wire to the substrate. (Col. 7, line 27). This is not joining materials by using a staking pin, as recited in the claim.

Moreover, the Office Action states that a “person of ordinary skill is motivated to modify Rorvick with Funari to obtain weld of desired size.” This assertion is not disclosed in either reference. As noted, the Funari reference discloses nothing about staking pin welds. There is no motivation or suggestion in the art or in either reference to justify modifying Rorvick in view of Funari. They are joining material by two completely different techniques. The size of Funari's electrical welding tips has no relevance on the size of Rorvick's staking pins.

Moreover, there is no motivation in the art to modify the Rorvick reference. As noted above, Rorvick et al. relates a welding technique to minimize the “overall thickness of anode sub-assembly 170 in the regions of welds 205 and 210.” (Col. 25, lines 38-39). Rorvick et al. state that in a preferred embodiment, the cold weld pins “have a diameter of about 0.060 inches.” (Col. 25, line 25). Rorvick et al. then state that “no or an inappreciable net increase in anode sub-assembly 170 thickness results when cold weld geometries and formation processes are appropriately optimized.” (Col 25, lines 52-54). Applicant believes this teaches away from modifying the geometry of the 0.060" weld pins of Rorvick et al. Applicant notes that if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP § 2143.01. Accordingly, one skilled in the art would not be motivated to make the asserted modification.

Claims 40-46 include each limitation of their parent claim and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

Claims 49-52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over MacFarlane et al. (U.S. Patent No. 5,584,890) in view of Rorvick et al. (U.S. Patent No. 6,009,348). Claims 49-51 have been canceled without prejudice or disclaimer.

Claim 52

Applicant has amended claim 52 to better describe the subject matter recited in the claim. Applicant believes claim 52 is not obvious in view of the cited references since, even if combined, the combination does not include each limitation recited in the claim. For instance, Applicant cannot find in either reference: edge-connecting each anode connection member to the anode connection member or connection members adjacent to each anode connection member directly along an exposed end face of each of the connection members. Reconsideration and allowance is respectfully requested.

Claim 53 was rejected under 35 U.S.C. § 103(a) as being unpatentable over MacFarlane et al. (U.S. Patent No. 5,584,890) in view of Rorvick et al. (U.S. Patent No. 6,009,348) as applied above, and further in view of Funari (U.S. Patent No. 4,171,477).

Claim 53 includes each limitation of its parent claim 52 and is therefore also not obvious in view of the cited references for the reasons given above. Reconsideration and allowance is respectfully requested.

Claims 8 and 54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rorvick et al. (U.S. Patent No. 6,009,348) in view of Funari (U.S. Patent No. 4,171,477) or MacFarlane et al. (U.S. Patent No. 5,584,890) in view of Rorvick et al. (U.S. Patent No. 6,009,348), as applied above, and further in view of Strange et al. (U.S. Patent No. 6,299,752).

Claims 8 and 54 include each limitation of their respective parent claims and are not obvious in view of the cited references for the reasons given above for their parent claims since the secondary reference does not overcome the deficiencies of the primary references discussed above. Reconsideration and allowance is respectfully requested.

Claim 55 was rejected under 35 U.S.C. § 103(a) as being unpatentable over MacFarlane et al. (U.S. Patent No. 5,584,890) in view of Rorvick et al. (U.S. Patent No. 6,009,348), as applied above, and further in view of Elias et al. (U.S. Patent No. 5,660,737).

Claim 55 include each limitation of parent claim 52 and is not obvious in view of the cited reference for the reasons given above for parent claim 52. Reconsideration and allowance is respectfully requested.

Allowable Subject Matter

Applicant acknowledges the allowance of claims 36-38.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 359-3267 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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6/6/05

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 6 day of June, 2005.

Name

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